

## A B S T R A C T

The present invention relates to a scheduler, also referred to as a service discipline, for a system comprising a plurality of nodes sharing a plurality of resources such as wavelengths. The scheduler 2 of the invention schedules the transmission of data from a plurality of queues  $B_1$ ,  $B_2$ , and  $B_3$  from a source node 1 to a plurality of destination nodes  $N_1$ ,  $N_2$ , and  $N_3$  via a plurality of outlet ports  $P_1$ ,  $P_2$ ,  $P_3$ , and  $P_4$  from said source node 1, each of said outlet ports  $P_1$ ,  $P_2$ ,  $P_3$ , and  $P_4$  being associated with a resource  $OR_1$ ,  $OR_2$ ,  $OR_3$ , and  $OR_4$ , the data being transmitted via said resource to a destination node  $N_1$ ,  $N_2$ , and  $N_3$ , each of said nodes receiving data from all or some of said plurality of resources  $OR_1$ ,  $OR_2$ ,  $OR_3$ , and  $OR_4$ . The scheduler device 2 is characterized in that it comprises a plurality of servers  $S_1$ ,  $S_2$ ,  $S_3$ , and  $S_4$ , each of said servers being associated with a respective one of said resources of said plurality of resources  $OR_1$ ,  $OR_2$ ,  $OR_3$ , and  $OR_4$ , and each of said servers comprising scheduler means, said scheduler means being independent for each of said servers.